

JEFFREY A. WOLK
Serial No. 09/662,409
Page 2

CLAIM AMENDMENTS:

(Claim 1 cancelled)

2. (currently amended) A microfluidic device, comprising:
a body structure having at least a first microscale channel disposed therein;
a capillary element having first and second ends and a capillary channel disposed therethrough, the first end of the capillary element being attached to the body structure whereby the capillary channel is in fluid communication with the at least first microscale channel; and
a conductive layer deposited on at least a portion of a surface of the capillary element, the conductive layer extending from a point proximal to the first end of the capillary element up to the second end of the capillary element.
3. (previously presented) The microfluidic device of claim 2, wherein the conductive layer comprises a conductive stripe along a portion of a length of the capillary element.
4. (previously presented) The microfluidic device of claim 2, wherein the conductive layer comprises a continuous layer around a circumference of the capillary element.
5. (previously presented) The microfluidic device of claim 2, wherein the capillary element is attached to the body structure by the first end being inserted into an aperture in the body structure.
6. (previously presented) The microfluidic device of claim 5, wherein the conductive layer is deposited along a portion of a length of the capillary element that extends to a point proximal to but not up to the first end of the capillary element.
7. (previously presented) The microfluidic device of claim 2, wherein the capillary element is substantially rectangular.
8. (previously presented) The microfluidic device of claim 7, wherein the capillary channel in the capillary element is substantially colinear with the at least one microscale channel disposed in the body structure.

B1

JEFFREY A. WOLK
Serial No. 09/662,409
Page 3

B1
Cont'd

9. (previously presented) The microfluidic device of claim 7, wherein the capillary channel in the capillary element is substantially perpendicular to the at least one microscale channel disposed in the body structure.